

Appl. No. 09/848,885  
Appeal Brief in Response  
to final Office action of 27 October 2005

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**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

Appl. No. : 09/848,885  
Applicant(s) : EPSTEIN et al.  
Filed : 04 May 2001  
TC/A.U. : 2132  
Examiner : DINH, Minh  
Atty. Docket : US 000140

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On: 9 January 2006

By: 

Title: **CONFIRMING THE EXISTENCE OF A COMPLETE DATA SET UNDER  
MULTIPLE CONTROL SCENARIOS**

Mail Stop: **APPEAL BRIEF - PATENTS**  
Commissioner for Patents  
Alexandria, VA 22313-1450

**APPEAL UNDER 37 CFR 41.37**

Sir:

This is an appeal from the decision of the Examiner dated 27 October 2005,  
finally rejecting claims 1-23 of the subject application.

This paper includes (each beginning on a separate sheet):

1. Appeal Brief, with appendices; and
2. Credit card authorization in the amount of \$500.

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US-000140 Appeal Brief 5.A27

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## **APPEAL BRIEF**

### **I. REAL PARTY IN INTEREST**

The above-identified application is assigned, in its entirety, to Koninklijke Philips Electronics N. V., Eindhoven, The Netherlands.

### **II. RELATED APPEALS AND INTERFERENCES**

Appellant is not aware of any co-pending appeal or interference which will directly affect or be directly affected by or have any bearing on the Board's decision in the pending appeal.

### **III. STATUS OF CLAIMS**

Claims 1-23 are pending in the application.

Claims 1-7, 18, and 20-23 stand rejected by the Examiner under 35 U.S.C. 102(e).

Claims 8-17 and 19 stand rejected by the Examiner under 35 U.S.C. 103(a). These rejected claims are the subject of this appeal.

### **IV. STATUS OF AMENDMENTS**

No amendments were filed subsequent to the final rejection in the Office Action dated 27 October 2005.

### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The claimed invention is particularly well suited for preventing the playback of songs that are "ripped" from an album, based on a determination of whether the entire album is present at the source of the playback material (Applicants' page 6, lines 7-15). The album corresponds to a data set, and the presence of the data set is confirmed by verifying that a substantial portion of the original sections that formed the data set are present (page 3, lines 22-24). This verification can be based on actually receiving a substantial portion of the data set, or based on the ability of

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source to provide selected sections of the data set (page 3, lines 27-30). If the selected sections are randomly selected, statistical tests can be used to facilitate this verification (page 11, line 29 through page 13, line 8).

As claimed in independent claim 1, the invention comprises a system (FIG. 1) that receives (122) select data items of a plurality of data items corresponding to a data set (130), and includes a verifier (126) that provides a verification of a presence of the data set via a first verification of a presence of a select subset of the plurality of data items (FIG. 3, 340-350), and a second verification of a receipt of a given proportion of the plurality of data items (FIG. 3, 360), and provides the verification of the presence of the data set if either the first verification or the second verification occurs (303-370). (Page 10, lines 1-16 and page 11, line 21 through page 14, line 19.)

As claimed in dependent claim 5, the verifier identifies the select subset based on a random process, and includes consideration of a likelihood of receiving the select subset of data items by chance occurrence (page 11, line 29 through page 13, line 8).

As claimed in dependent claim 6, the verifier identifies the select subset based on a random process, and includes consideration of a likelihood of not receiving a data item of the select subset even though the data item is present (page 11, line 29 through page 13, line 8).

As claimed in dependent claim 8, each data item includes one or more sections and each section includes a section identifier corresponding to the section and a data set identifier corresponding to the data set, and the verification via a select subset is based on one or more responses to requests for specific sections of the plurality of sections (FIG. 3, 340-344; page 11, line 27 through page 12, line 13).

As claimed in dependent claim 12, each data item includes one or more sections and each section includes a section identifier corresponding to the section and a data set identifier corresponding to the data set, and the verification via receipt of a given proportion is based on a number of different sections received compared to a total number of sections comprising the data set (page 14, lines 11-15).

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As claimed in dependent claim 14, each data item includes one or more sections and each section includes a section identifier corresponding to the section and a data set identifier corresponding to the data set, and the verification via receipt of a given proportion is based on a verification of at least one of the section identifier and the data set identifier of randomly selected sections (page 14, lines 21-28).

As claimed in independent claim 18, the invention comprises a method (FIG. 3) of controlling a rendering of data items of a data set, that includes receiving sections of the data set (310), conducting a first test for a presence of an entirety of the data set based on a receipt of randomly selected sections of the data set (330-340-350), conducting a second test for the presence of the entirety of the data set based on a receipt of a quantity of different sections of the data set (360), and controlling the rendering of the data items in dependence upon a result of either the first or second test (370). (Page 11, line 21 through page 14, line 19.)

#### **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-7, 18, and 20-23 stand rejected under 35 U.S.C. 102(e) over Serret-Avila et al. (USP 6,785,815, hereinafter Serret-Avila).

Claims 8-17 and 19 stand rejected under 35 U.S.C. 103(a) over Serret-Avila and Oshima et al. (USP 6,266,299, hereinafter Oshima).

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## **VII. ARGUMENT**

### **Claims 1-7, 18, and 20-23 stand rejected under 35 U.S.C. 102(e) over Serret-Avila**

#### **Claims 1-7**

Claim 1, upon which claims 2-17 depend, claims a system that includes a verifier that provides a verification of a presence of a data set based on either the presence of a select subset of the data set, or the receipt of a given proportion of the data set.

Serret-Avila teaches a conventional data-access control device based on a verification of the validity of each data section. As taught by Serret-Avila:

"When a user attempts to access or use a portion of the data signal, the signal is checked for the presence of a watermark containing the digital signature for the desired portion of the signal. If the watermark is found, the digital signature is extracted and used to verify the authenticity of the desired portion of the signal." (Serret-Avila, Abstract)

As illustrated in Serret-Avila's FIGs. 4A, 4B, and 5A, the digital signature of each segment of the data signal is stored in the watermark of the next sequential segment (Serret-Avila, column 13, lines 1-5). Optionally, an additional segment can be transmitted with the digital signature of the "last" segment (Serret-Avila, column 13, lines 14-20).

Serret-Avila does not teach a verification of a presence of a data set based on the presence of a select subset of the data set, and Serret-Avila does not teach a verification of a presence of a data set based on the receipt of a given proportion of the data set, each of which are specifically claimed in claim 1.

Serret-Avila does not determine the presence of the data set corresponding to a presented segment of the data set. Consider, for example, a data set (e.g. an album of songs) comprising 1000 segments, and a subset of the data set (e.g. a song) that is recorded at segments 250 through 299. If a user "rips" the subset of segments 250-300 from the data set, Serret-Avila's system will allow continuous access to each of the segments 250-299, without regard to whether the data set is present per se. When segment 250 is read, the watermark of segment 251 will be

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accessed to determine whether segment 250 is authorized. Then the watermark of segment 252 will be accessed to determine whether segment 251 is authorized, and so on. The fact that segments 1-249 and 301-1000 of the data set are absent is completely transparent to Serret-Avila.

The Office action asserts that Serret-Avila teaches verifying the presence of a select subset of the plurality of data items at FIGs. 9A-9B and corresponding text. The applicants disagree with this assertion. Serret-Avila teaches marking a select subset (Mark-Holder Candidates) of the plurality of data items in FIG. 9A, and teaches determining the presence of the marking at FIG. 9B. Serret-Avila does not teach verifying the presence of the subset; Serret-Avila teaches verifying the presence of a watermark in the given subset. That is, Serret-Avila assumes that the subset is present; Serret-Avila does not address the possibility that the subset is not present, because the purpose of FIG. 9B is to determine whether the given subset is protected. Serret-Avila's FIG. 9B is meaningless if the subset is not present.

The Office action further asserts that Serret-Avila teaches verifying the presence of a data set based on the receipt of a given proportion of the data set at FIGs. 10-11 and accompanying text. The applicants disagree with this assertion. At FIG. 10, Serret-Avila teaches the insertion of fragile watermarks into each segment/block of the data set. At FIG. 11, Serret-Avila teaches the above described process of verifying each block based on the extracted watermark of each subsequent block. As noted above, Serret-Avila verifies each block sequentially, and as long as the block corresponds to the signature in the watermark of the next block, access is granted to the block, independent of the number of blocks presented. That is, as illustrated in FIG. 11, Serret-Avila's system allows a user to access "N" requested blocks, via the reading of "N+1" blocks, and "N" can be as small as 1, regardless of the size of the data set.

It is significant to note that nowhere in FIG. 11 does the size of the data set appear, and nowhere in FIG. 11 is the value of "N" tested or compared. Therefore, an assertion that FIG. 11 teaches verification that a given proportion of the data set is received is unfounded.

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Because Serret-Avila does not teach a verification of a presence of a data set based on the presence of a select subset of the data set, and Serret-Avila does not teach a verification of a presence of a data set based on the receipt of a given proportion of the data set, each of which are specifically claimed in claim 1, the applicants respectfully maintain that claims 1-7 are patentable under 35 U.S.C. 102(e) over Serret-Avila.

#### **Claims 5-6**

Each of claims 5 and 6 claims the identification of the select subset of the data set based on a random process.

The Office action asserts that Serret-Avila teaches the selection of a subset of the data set based on a random process at FIG. 9B. The applicants disagree with this assertion.

FIG. 9B illustrates the application of random keys to a given subset, the given subset being the identified "mark-holder candidates". Serret-Avila's keys cannot be said to correspond to a subset of the data set, and Serret-Avila does not teach that the mark-holder candidates are randomly selected. On the contrary, as taught by Serret-Avila:

"Mark-holder candidates are typically identified by analyzing one or more signal characteristics, such as the audible signal degradation that a given modification will introduce, or the probability that the mark contained in a given mark holder will be destroyed by an attack." (Serret-Avila, column 19, lines 58-63.)

Because Serret-Avila does not teach the selection of a subset of the data set based on a random process, as specifically claimed in each of claims 5 and 6, the applicants respectfully maintain that claims 5 and 6 are patentable under 35 U.S.C. 102(e) over Serret-Avila.

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**Claims 18 and 20-23**

Claim 18, upon which claims 19-23 depend, claims a method of controlling a rendering of data items of a data set, that includes conducting a first test for a presence of an entirety of the data set based on a receipt of randomly selected sections of the data set, conducting a second test for the presence of the entirety of the data set based on a receipt of a quantity of different sections of the data set, and controlling the rendering of the data items in dependence upon a result of either the first or second test.

As noted above, Serret-Avila does not teach conducting a test for the presence of an entirety of a data set, and cannot be said to teach conducting a test for the presence of an entirety of the data set based on a receipt of randomly selected sections of the data set, and cannot be said to teach conducting a test for the presence of the entirety of the data set based on a receipt of a quantity of different sections of the data set.

Further, as also noted above, Serret-Avila does not teach receiving randomly selected sections of a data set, and Serret-Avila does not teach a test based on receipt of a quantity of different sections of the data set.

Because Serret-Avila fails to teach each of the elements of claim 18, the applicants respectfully maintain that the rejection of claims 18 and 20-23 under 35 U.S.C. 102(e) over Serret-Avila is unfounded.



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**Claims 8-17 and 19 stand rejected under**  
**35 U.S.C. 103(a) over Serret-Avila and Oshima**

**Claims 8-17**

Each of claims 8-17 are dependent upon claim 1. In this rejection, the Examiner relies upon Serret-Avila for teaching the elements of claim 1.

Because, as detailed above, Serret-Avila does not teach a verification of a presence of a data set based on the presence of a select subset of the data set, and Serret-Avila does not teach a verification of a presence of a data set based on the receipt of a given proportion of the data set, each of which are specifically claimed in claim 1, the applicants respectfully maintain that the rejection of claims 8-17 under 35 U.S.C. 103(a) that relies on Serret-Avila for teaching the elements of claim 1 is unfounded.

**Claims 8-11**

Claim 8, upon which claims 9-11 depend, includes the verification of the presence of the data set based on one or more responses to requests for specific sections of the plurality of sections.

Neither Serret-Avila nor Oshima teaches a verification of the presence of a data set based on responses to requests for specific sections of the data items forming the data set.

The Office action asserts that Serret-Avila teaches this verification at FIGs. 9A-9B. The applicants disagree with this assertion. As noted above, Serret-Avila assumes that the subset of mark-holder candidates are present, and does not address requesting each of these sections, and does not address performing a verification based on the response to such requests.

Because both Serret-Avila and Oshima fail to teach or suggest a verification of the presence of a data set based on responses to requests for specific sections of the data items forming the data set, as specifically claimed in claim 8, the applicants

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respectfully maintain that the rejection of claims 8-11 under 35 U.S.C 103(a) over Serret-Avila and Oshima is unfounded.

#### **Claims 12-13**

Claim 12, upon which claim 13 depends, includes a verification of the presence of a data set based on a number of different sections received compared to a total number of sections comprising the data set.

Neither Serret-Avila nor Oshima teaches a verification of the presence of a data set based on a number of different sections received compared to a total number of sections comprising the data set.

The Office action asserts that Serret-Avila teaches a verification of the presence of a data set based on a number of different sections received compared to a total number of sections comprising the data set at FIGs. 10 and 11, and column 17, lines 34-43. As noted above, FIGs. 10 and 11 do not include the total number of sections comprising a data set. The cited text teaches applying statistical methods to determine whether a signature is valid, and is unrelated to determining the number of different sections received compared to the total number of sections comprising the data set.

Because both Serret-Avila and Oshima fail to teach or suggest verification of the presence of a data set based on a number of different sections received compared to a total number of sections comprising the data set, as specifically claimed in claim 12, the applicants respectfully maintain that the rejection of claims 12 and 13 under 35 U.S.C 103(a) over Serret-Avila and Oshima is unfounded.

#### **Claims 14-16**

Claim 14, upon which claims 15-16 depend, includes the limitation that each data item includes one or more sections and each section includes a section identifier corresponding to the section and a data set identifier corresponding to the data set, and the verification of the presence of the data set is based on a verification of at

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least one of the section identifier and the data set identifier of randomly selected sections.

The Office action fails to identify a teaching in either Serret-Avila or Oshima of a verification of at least one of the section identifier and the data set identifier of randomly selected sections, and thus fails provide a *prima facie* case of obviousness for the rejection of claims 14-16.

As stated in MPEP 2142: "If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness."

#### **Claim 19**

Claim 19 is dependent upon claim 18, and the rejection of claim 19 relies upon Serret-Avila for teaching the elements of claim 18.

Because, as detailed above, Serret-Avila does not teach conducting a test for the presence of an entirety of the data set based on a receipt of randomly selected sections of the data set, and because Serret-Avila does not teach conducting a test for the presence of the entirety of the data set based on a receipt of a quantity of different sections of the data set, as specifically claimed in claim 18, the applicants respectfully maintain that the rejection of claim 19 under 35 U.S.C. 103(a) that relies upon Serret-Avila for teaching the elements of claim 18 is unfounded.

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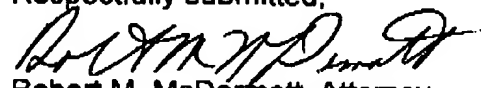
### **CONCLUSIONS**

Because Serret-Avila does not teach a verification of a presence of a data set based on the presence of a select subset of the data set, and Serret-Avila does not teach a verification of a presence of a data set based on the receipt of a given proportion of the data set, each of which are specifically claimed in claim 1, the applicants respectfully requests that the Examiner's rejection of claims 1-17 under 35 U.S.C. 102(e) and 103(a) be reversed by the Board, and the claims be allowed to pass to issue.

Because Serret-Avila does not teach conducting a test for the presence of an entirety of the data set based on a receipt of randomly selected sections of the data set, and because Serret-Avila does not teach conducting a test for the presence of the entirety of the data set based on a receipt of a quantity of different sections of the data set, as specifically claimed in claim 18,, the applicants respectfully requests that the Examiner's rejection of claims 18-23 under 35 U.S.C. 102(e) and 103(a) be reversed by the Board, and the claims be allowed to pass to issue.

Further, based on the remarks above, the applicants respectfully request that the Examiner's rejection of each of claims 5-6 and 8-16 be reversed by the Board, and the claims be allowed to pass to issue.

Respectfully submitted,



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### **CLAIMS APPENDIX**

**1. A system that is configured to receive one or more select data items of a plurality of data items corresponding to a data set, comprising:**

**a verifier that is configured to provide a verification of a presence of the data set, via:**

**a first verification of a presence of a select subset of the plurality of data items, and**

**a second verification of a receipt of a given proportion of the plurality of data items, and**

**wherein the verifier provides the verification of the presence of the data set if either the first verification or the second verification occurs.**

**2. The system of claim 1, further including**

**a renderer that is configured to receive the data items, and**

**a gate, operably coupled to the renderer and the verifier, that is configured to selectively inhibit or allow access to an output of the renderer corresponding to the data item, based on the verification of the presence of the data set.**

**3. The system of claim 2, wherein**

**the renderer is further configured to store the one or more select data items in a secure format that inhibits a subsequent rendering of the data items, and**

**the gate is further configured to allow the subsequent rendering of the data items from the secure format.**

**4. The system of claim 2, wherein**

**the system is further configured to provide a recording of the one or more data items.**

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**5. The system of claim 1, wherein**

**the verifier is configured to identify the select subset, based on a random process, and**

**the first verification includes consideration of a likelihood of receiving the select subset of data items by chance occurrence.**

**6. The system of claim 1, wherein**

**the verifier is configured to identify the select subset, based on a random process, and**

**the first verification includes consideration of a likelihood of not receiving a data item of the select subset even though the data item is present.**

**7. The system of claim 1, wherein**

**at least one of the first verification and the second verification includes a likelihood of an inaccurate reception of the one or more data items.**

**8. The system of claim 1, wherein**

**each data item of the plurality data items includes one or more sections, thereby forming a plurality of sections comprising the data set,**

**each section of the plurality of sections including a section identifier corresponding to the section and a data set identifier corresponding to the data set, and**

**the first verification is based on one or more responses to requests for specific sections of the plurality of sections.**

**9. The system of claim 8, wherein**

**at least one of the data set identifier and the section identifier of each section is embedded in the section as at least one watermark.**

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**10. The system of claim 9, wherein**

**the at least one watermark includes:**

**a fragile watermark that is configured such that a modification of the section causes damage to the fragile watermark, and**

**a robust watermark that is configured such that a removal of the robust watermark causes damage to the associated section.**

**11. The system of claim 10, wherein**

**the data items correspond to at least one of: digitally encoded audio content, and digitally encoded video content.**

**12. The system of claim 1, wherein**

**each data item of the plurality data items includes one or more sections, thereby forming a plurality of sections comprising the data set,**

**each section of the plurality of sections including a section identifier corresponding to the section and a data set identifier corresponding to the data set, and**

**the second verification is based on a number of different sections received, compared to a total number of sections comprising the data set.**

**13. The system of claim 12, wherein**

**at least one of the data set identifier and the section identifier of each section is embedded in the section as at least one watermark.**

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**14. The system of claim 1, wherein**

**each data item of the plurality data items includes one or more sections,**  
**thereby forming a plurality of sections comprising the data set,**

**each section of the plurality of sections including a section identifier**  
**corresponding to the section and a data set identifier corresponding to the data set,**  
**and**

**the second verification is based on a verification of at least one of the section**  
**identifier and the data set identifier of randomly selected sections.**

**15. The system of claim 14, wherein**

**the at least one of the data set identifier and section identifier is embedded in**  
**the randomly selected sections as at least one watermark.**

**16. The system of claim 15, wherein**

**the at least one watermark includes:**

**a fragile watermark that is configured such that a modification of the**  
**section causes damage to the fragile watermark, and**

**a robust watermark that is configured such that a removal of the robust**  
**watermark causes damage to the associated section.**

**17. The system of claim 1, wherein**

**the verifier is further configured to provide the verification of the presence of**  
**the data set via a third verification of a correspondence among identifiers of the data**  
**set in each of the received data items.**



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18. A method of controlling a rendering of data items of a data set, comprising:  
    receiving sections of the data set,  
    conducting a first test for a presence of an entirety of the data set based on a receipt of randomly selected sections of the data set,  
    conducting a second test for the presence of the entirety of the data set based on a receipt of a quantity of different sections of the data set, and  
    controlling the rendering of the data items in dependence upon a result of either the first or second test.

19. The method of claim 18, further including  
    conducting a third test for the presence of the entirety of the data set based on a correspondence among a data set identifier that is included in each section of the data set.

20. The method of claim 18, wherein  
    each section further includes a section identifier, and  
    at least one of the section identifier and an identifier of the data set is included in each section as one or more watermarks.

21. The method of claim 20, wherein  
    the one or more watermarks include:  
        a robust watermark that is embedded in the corresponding section such that a removal of the robust watermark causes a corruption of data contained in the section, and  
        a fragile watermark that is embedded in the corresponding section such that a modification of the data contained in the section causes a corruption of the fragile watermark.

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22. The method of claim 18, wherein the data items includes at least one of: digitally encoded audio content, and digitally encoded video content.

23. The method of claim 18, wherein  
conducting the second test includes verifying a random selection of the  
different sections of the data set.

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### **EVIDENCE APPENDIX**

No evidence has been submitted that is relied upon by the appellant in this appeal.

### **RELATED PROCEEDINGS APPENDIX**

Appellant is not aware of any co-pending appeal or interference which will directly affect or be directly affected by or have any bearing on the Board's decision in the pending appeal.